

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.:	MO-0056260
Owner:	City of Ava
Address:	PO Box 967, Ava, MO 65608
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Ava Wastewater Treatment Plant
Address:	Farm Road 506, Ava, MO 65608
Legal Description:	SW ¼, NE ¼, Sec. 15, T26N, R16W, Douglas County
Latitude/Longitude:	+3656401/-09240361
Receiving Stream:	Tributary to Prairie Creek (U)
First Classified Stream and ID:	Cowskin Creek (P)(02482)
USGS Basin & Sub-watershed No.:	(1101003-020002)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

<u>December 10, 2004</u>	<u>September 9, 2005</u>
Effective Date	Revised Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

December 9, 2009
Expiration Date
MO 780-0041 (10-93)

Edward Galbraith, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - POTW - SIC #4952

Aeration basins/clarifiers/tertiary filtration/ultraviolet disinfection/aerobic sludge digestion/sludge is land applied.

Design population equivalent is 4,733.

Design flow is 0.7 MGD.

Actual flow is 0.44 MGD.

Design sludge production is 213 dry tons/year.

Actual sludge production is 70 dry tons/year.

Outfall #002 - POTW - SIC #4952

Stormwater diversion over 3.4 MGD/stormwater lagoon.

Design flow is 1.0 MGD.

Actual flow is dependent on rainfall.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 6	
					PERMIT NUMBER MO-0056260	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> Flow	MGD	*		*	once/weekday**	24 hr. total
Biochemical Oxygen Demand ₅ ***	mg/L		15	10	once/week	24 hr. composite
Total Suspended Solids***	mg/L		20	15	once/week	24 hr. composite
pH – Units	SU	****		****	once/week	grab
Fecal Coliform	#/100mL	1000		400	once/week	grab
Ammonia Nitrogen (summer) (winter)	mg/L	5.1 3.7		2.5 2.0	once/week	24 hr. composite
Temperature	°F	*		*	once/week	grab
Dissolved Oxygen	mg/L	*		*	once/week	grab
Total Phosphorus	mg/L	*		*	once/week	grab
Nitrate + Nitrite	mg/L	*		*	once/week	grab
Total Nitrogen	mg/L	*		*	once/week	grab
<u>Outfall #002</u> (Note 2) Flow	MGD	*		*	once/day	*****
Biochemical Oxygen Demand ₅	mg/L		45		once/discharge event	grab
Total Suspended Solids	mg/L		45		once/discharge event	grab
pH – Units	SU	****		****	once/discharge event	grab
Fecal Coliform	#/100mL	*		*	once/discharge event	grab
Ammonia Nitrogen	mg/L	*		*	once/discharge event	grab
Total Phosphorus	mg/L	*		*	once/discharge event	grab
Nitrate + Nitrite	mg/L	*		*	once/discharge event	grab
Total Nitrogen	mg/L	*		*	once/discharge event	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2005</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 4 of 6	
					PERMIT NUMBER MO-0056260	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Downstream Monitoring</u> (DS-1 & DS-2)*****						
Flow	MGD	*		*	once/quarter	instantaneous estimate
Biochemical Oxygen Demand ₅	mg/L	*		*	once/quarter	grab
Dissolved Oxygen	mg/L	*		*	once/quarter	grab
Ammonia Nitrogen	mg/L	*		*	once/quarter	grab
Temperature	°F	*		*	once/quarter	grab
Total Phosphorus	mg/L	*		*	once/quarter	grab
Total Nitrogen	mg/L	*		*	once/quarter	grab
PH - Units	SU	****		****	once/quarter	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2005</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Once each weekday means: Monday, Tuesday, Wednesday, Thursday and Friday.
- *** This facility is required to meet a removal efficiency of 85% or more.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- ***** Instantaneous reading converted to report 24 hour average.
- ***** DS-1 is Prairie Creek approximately 50 yards prior to confluence with Cowskin Creek. DS-2 is Cowskin Creek approximately 50 yards below confluence with Prairie Creek.

Note 1 – The interim effluent limitations of this permit contains a Total Residual Chlorine (TRC) limit.

- a. If the TRC limit in this permit is between 0.01 mg/L and 0.2 mg/L, you must use an analytical method that has a quantification limit of no greater than 0.05 mg/L TRC. For reporting purposes on the discharge monitoring report (DMR), all analytical values below 0.05 mg/L shall be reported as “<quantlim.” All analytical values at or above the quantification limit of 0.05 mg/L shall be reported as the measured value. The permittee shall report the quantification limit in the remarks section of the DMR.

The average monthly effluent values for TRC will be determined by assuming that analytical results below the quantification limit are equivalent to 0 mg/L when calculating the monthly average.

The daily effluent value will be considered equal to 0 mg/L if it is below the quantification limit.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- b. If the TRC limit in this permit is 1.0 mg/L; you must use an analytical method with a quantification limit between 0.2 and 0.5 mg/L. All analytical values below the quantification limit shall be reported as “<quantlim.” All analytical values at or above the quantification limit shall be reported as the measured value.

The average monthly effluent values for TRC will be determined by assuming that analytical results below the quantification limit are equivalent to 0 mg/L when calculating the monthly average.

The daily effluent value will be considered equal to 0 mg/L if it is below the quantification limit.

- c. Disinfection is required year-round unless the permit specifically states that “Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.” If your permit does not require disinfection during the non-recreational months, do not chlorinate in those months.
- d. Do not chemically dechlorinate if it is not needed to meet the limits in your permit.
- e. If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as “0 mg/L” TRC.

Note 2 – Discharge shall occur only when flows exceed the design capacity of Outfall #001.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri’s Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri’s list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

C. SPECIAL CONDITIONS (continued)

4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

6. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
- (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

8. The permittee shall submit a report semi-annually with the Discharge and Monitoring reports, on January 28 and July 28, which address measures taken to locate and eliminate sources of infiltration and inflow into the City's collection system.